

## Report of Employee's Invention

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- This Employee's Invention is received as a property of the Industrial Property Team of the Communication Research Center (Suwon/Kumie).

- Title of the Invention Control for remote monitoring by a mobile videophone

- Subject Name GEO VOD Phone - Subject Code - Product Name

- Name (Code) of Core Technology

- Evaluation of the Technological Matter

Class of Invention	Independent Invention				
Contract management	[contract attachment]				
	File Name		File Description		
	[Note about Property & Compensation]				
Publication	Expected Publication Date		Publisher (state or organization)		Method of Publication

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## Employee's Invention Report File

Filename	File Description
Control-for-remote-control-by-mobile-videophone.gul	Control for remote monitoring by a mobile videophone

## Evaluated Grade of the Invention

Evaluator		Date of evaluation	Grade	Opinion
Inventor	LIM CHAE WHAN		S (strategic)	Compensation for functional method of using a mobile videophone in monitoring
Dep. chief	KIM SOON JIN		A	Simultaneous computer input
Patent Department			A	Simultaneous computer input
Evaluation panel			A	Simultaneous computer input

## Progress of management of Employee's Invention

Inventor's submission Dep. Chief's Approval Receipt by Pat. Dep.

Employee's Invention Receipt No.: GW-200011-072-1

Invention Disclosure				[Preliminary Checkpoint]	
Title of the Invention					
Korean	REMOTE MONITORING APPARATUS USING A MOBILE VIDEOPHONE				
English	Control of mobile video-phone for remote surveillance				
Related Art & Prior Application					
[Source of Technology]	Similar Patent or Application	Appl./Reg. No.		Appl./Reg. date	
		Title of Invention			
		Applicant			
	Background Document or Product	Name of Document/ Model		Discloser/ Producer	
		Date of publication/ production		Page/Others	
	Applicant's Prior Applications Relating to Invention	Filed	Title		
			Appl. No./Date		
		In progress	Title of Invention		
Reception No./Date					

## 1. BACKGROUND OF THE INVENTION

### A. Field of the Invention

Multimedia, moving picture compression, remote monitoring, remote search

### B. Description of the Related Art

In the conventional remote monitoring system, a camera is mounted on a remotely-situated pan-and-tilt pedestal, which is controlled by wire or controlled wirelessly with a remote controller within a limited radius. A remote place's spot picture photographed by the camera mounted on the pan-and-tilt pedestal is transmitted by wire to a monitoring terminal such as a computer.



### C. Problems of the Prior Arts and Objects of the Invention

#### - Problems of the Prior Arts

However, the conventional remote monitoring system costs a great deal in installing the camera on the pan-and-tilt pedestal and needs a lot of additional equipments for controlling the remotely-situated camera. In addition, the monitoring terminal should be connected to the camera by wire in order that a user can view through the monitoring terminal the remote place spot picture photographed by the camera, which makes it difficult to install and maintain the conventional remote monitoring system. Moreover, when the number of remote places to be monitored through the conventional remote monitoring system increases, the scale of the conventional remote monitoring system should be unacceptably enlarged.

#### - Objects of the Invention

It is an object of the present invention to provide an apparatus for performing remote monitoring with small expense by simply using a mobile videophone which everyone can carry for remote monitoring and search.

## 2. DETAILED DESCRIPTION OF THE INVENTION (UTILITY MODEL)

### A. Construction of the Invention

The present invention provides a remote monitoring apparatus comprising a mobile videophone capable of performing a long-distance wireless communication and having a camera capable of compressing and transmitting moving pictures; an independent camera supporting only a local area communication such as Bluetooth, and capable of compressing and transmitting moving pictures; a dynamic support for supporting the mobile videophone or the independent camera and controlling a view line direction, location, or posture of

the camera of the mobile videophone or the independent camera; and a connector for communication between the dynamic support and the mobile videophone or the independent camera.

#### B. Operation of the Invention

When an image call is terminated to a mobile videophone mounted on a remote dynamic support for remote monitoring or remote search, the remotely-placed mobile videophone instantly transmits pictures in front of the view line of a camera of the mobile videophone so that the pictures can be displayed on a caller's mobile videophone or computer monitor connected through a wireless Internet. In order to obtain a more detailed view of the remote place, the user may operate user's mobile videophone or computer to transmit a control signal through the wireless Internet. Then, the control signal is transmitted through the connector to the dynamic support. The dynamic support having received the control signal performs proper posture control or position control, thereby moving the remote mobile videophone mounted on the dynamic support and changing the view line direction of the camera.

Further, when the user wants to view another location near the remote mobile videophone, the user may operate the user's mobile videophone or computer to transmit another control signal for controlling an independent camera located near the remote mobile videophone. Then, the remote mobile videophone receives said another control signal and transmits a signal for operating the independent camera to the independent camera through a local area wireless communication. Then, the independent camera compresses pictures in front of the view line of the independent camera and transmits the compressed data to the remote mobile videophone through the local area wireless communication. Upon receiving the compressed data, the remote mobile videophone transmits the data to the user's mobile videophone or computer connected through the wireless Internet. Finally, the user can view moving

pictures restored from the received data on a display.

In the same way, when a user wants to change the view line direction or location of the remotely-placed independent camera, the user may operate the user's mobile videophone or computer to transmit another control signal to the remotely-placed mobile videophone. Upon receiving the control signal, the mobile videophone transfers the signal to the independent camera through a proper local area wireless communication. Then, the independent camera transfers this signal through a connector to a dynamic support mounting the independent camera. Then, the dynamic support changes posture and location of the independent camera to desired posture and location.

### C. Effect of the Invention

As described above, a remote monitoring system according to the present invention makes it possible to inexpensively monitor a remote place using a mobile videophone anyone can carry. In addition, the remote monitoring system makes it possible to remotely monitor a vivid state of a dangerous spot using a dynamic support situated in the dangerous spot and a mobile videophone mounted on the dynamic support.

## 3. CLAIMS

\* Method of claim drafting

[examples]

### 1. Upper Concept (Independent Claim)

- A dynamic support capable of controlling posture and location of a mobile

videophone or an independent camera.

2. Lower Concept (Dependent Claim)

- The dynamic support as claimed in claim 1, which includes a posture control apparatus capable of controlling posture of a camera of the mobile videophone.
- The dynamic support as claimed in claim 1, which includes a location control apparatus capable of controlling location of the mobile videophone.

3. Upper Concept (Independent Claim)

- A connector for communication between a dynamic support and a mobile videophone or an independent camera.

4. Lower Concept (Dependent Claim)

- The connector as claimed in claim 3, which includes a detector for detecting whether the mobile videophone or independent camera is mounted on the dynamic support, wherein the connector receives a control signal and transfers the signal to the dynamic support in a state in which the mobile videophone or independent camera is mounted on the dynamic support.

5. Upper Concept (Independent Claim)

- A method for communication between a mobile videophone and an independent camera located near the mobile videophone.

6. Lower Concept (Dependent Claim)

- The method as claimed in claim 5, wherein a local area wireless communication is used in recognizing the independent camera located near the mobile videophone and controlling the independent camera.

7. Upper Concept (Independent Claim)



- An independent camera for compressing moving pictures and transmitting compressed data of a mobile videophone through a local area wireless communication.

8. Lower Concept (Dependent Claim)

- The method as claimed in claim 7, wherein moving pictures are compressed to generate compressed data and the compressed data is transmitted to a near mobile videophone through a local area wireless communication.

9. Upper Concept (Independent Claim)

- An entire system of the invention for remote monitoring and remote searching.

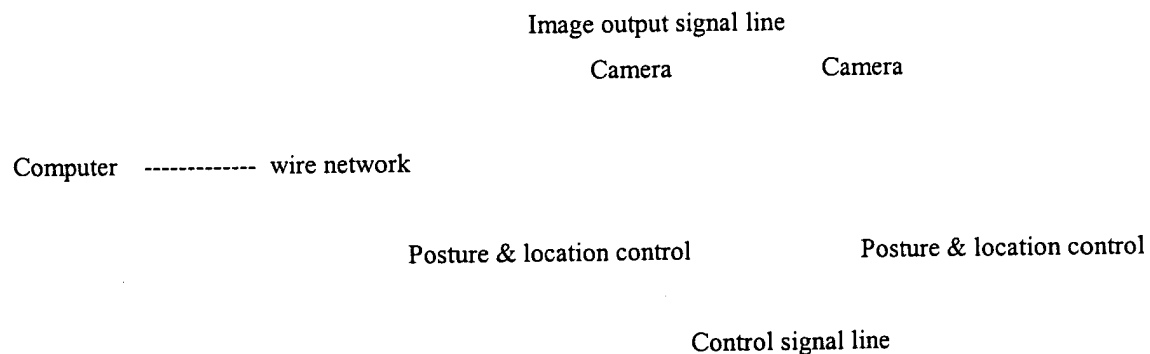
10. Lower Concept (Dependent Claim)

- The system as claimed in claim 9, which includes a user interface such as a mobile videophone or a computer connected through an Internet for remote monitoring and remote searching.

4. DRAWINGS

\* Method of drawing drafting

A. Prior Art Drawings





B. Drawings of the Invention

